

Issue Summary Report

DOE-ID

01/27/2004

Tracking Number	09106	Date Received	01/27/2004
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ID Perf. Goals		Date Closed	

Category

Correspondence

ID Organization

TS

Source

January 21, 2004

Description

ACTION-SUBJECT: AIRS FACILITY NO. 023-00001, NITROGEN OXIDE SOURCES, INEEL, IDAHO FALLS FINAL PERMIT LETTER
FROM: BAUER, MARTIN
FILE CODE: 6108
COPY TO: HURLEY, BOWMAN, DEPPERSCHMIDT

Summary

Attachment is subject permit effective immediately and replaces the previous Permit to Construct issued October 18, 1999.

Notes

File Code

6108

Facility

Originator

Bauer, Martin

Action Taken



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706-1255 • (208) 373-0502

Dirk Kempthorne, Governor
C. Stephen Allred, Director

January 21, 2004

Certified Mail No. 7099 3220 0009 1975 1245

Teresa Perkins
Director
Idaho National Engineering and Environmental Laboratory
P. O. Box 1625
Idaho Falls, ID 83415-3000

RE: AIRS Facility No. 023-00001, Nitrogen Oxide Sources, INEEL, Idaho Falls
Final Permit Letter

Dear Ms. Perkins:

The Idaho Department of Environmental Quality (DEQ) is issuing revised Permit to Construct (PTC) Number P-020521 for the Idaho Nuclear Technology and Engineering Center, Nitrogen Oxide Sources, in accordance with IDAPA 58.01.01.200 through 228 (*Rules for the Control of Air Pollution in Idaho*). This permit is effective immediately and replaces the previous PTC issued on October 18, 1999.

Please be advised that several comments received from INEEL on September 16, 2003 regarding the draft PTC have not been incorporated into this final permit (comments No. 6, 7, 10, 12, 15 - 25, 27, 28, and 30). The purpose of providing INEEL with a draft permit for review is to ensure that information provided in the permit application is accurately represented in the resulting permit. Information of new material and/or issues are outside the scope of this permit action, but can be addressed as part of a subsequent permit review and action. New information which requires a modification to the permit will require a technical and regulatory review and an opportunity for public comment to allow the public to view and comment on the additional information.

This permit does not release INEEL from compliance with all other applicable federal, state, or local laws, regulations, permits, or ordinances.

A representative of the Idaho Falls Regional Office will contact you regarding a meeting with DEQ to discuss the permit terms and requirements. DEQ recommends the following representatives attend the meeting: your facility's plant manager, responsible official, environmental contact, and any operations staff responsible for day-to-day compliance with permit conditions.

Pursuant to IDAPA 58.01.23, you, as well as any other entity, may have the right to appeal this final agency action within 35 days of the date of this decision. However, prior to filing a petition for a contested case, I encourage you to call Mike Simon at (208) 373-0502 to address any questions or concerns you may have with the enclosed permit.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Bauer" followed by a flourish and the word "for:".

Martin Bauer
Administrator
Air Quality Division

MB/CZ/sd

Permit No. P-020521

Enclosures

Nitrogen Oxide Sources, INEEL
Final Permit Letter, January 21, 2004
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cc: Rensay Owen, Idaho Falls Regional Office
Sherry Davis, Air Quality Division
Laurie Kral, EPA Region 10
Marilyn Seymore, Permit Binder
Pat Rayne, AFS
Mike Simon, Permit Coordinator
Carole Zundel, Permit Writer
Reading File (Ltr Only)
Phyllis Heitman, (Ltr Only)



**Air Quality
PERMIT TO CONSTRUCT**

**State of Idaho
Department of Environmental Quality**

PERMIT NO.: P-020521

FACILITY ID NO.: 023-00001

AQCR: 61

CLASS: A

SIC: 9999

ZONE: 12

UTM COORDINATE (km): 343.9, 4826.0

1. PERMITTEE

U.S. Department of Energy, Idaho Operations Office

2. PROJECT

Idaho Nuclear Technology and Engineering Center, Nitrogen Oxide Sources

3. MAILING ADDRESS

1955 N. Fremont Avenue

CITY

Idaho Falls

STATE

ID

ZIP

83415

4. FACILITY CONTACT

Teresa Perkins

TITLE

Director, Environmental Technical
Support Division

TELEPHONE

(208) 526-1483

5. RESPONSIBLE OFFICIAL

Elizabeth Sellers

TITLE

Manager, DOE Idaho Operations

TELEPHONE

(208) 526-5665

6. EXACT PLANT LOCATION

Eight miles north of the southern border of INEEL on Lincoln Blvd., INEEL

COUNTY

Butte

7. GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS

Energy Research and Development

8. GENERAL CONDITIONS

This permit is issued according to IDAPA 58.01.01.200, *Rules for the Control of Air Pollution in Idaho*, and pertains only to emissions of air contaminants regulated by the state of Idaho and to the sources specifically allowed to be constructed or modified by this permit.

This permit (a) does not affect the title of the premises upon which the equipment is to be located; (b) does not release the permittee from any liability for any loss due to damage to person or property caused by, resulting from, or arising out of the design, installation, maintenance, or operation of the proposed equipment; (c) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances; (d) in no manner implies or suggests that the Department of Environmental Quality (DEQ) or its officers, agents, or employees, assume any liability, directly or indirectly, for any loss due to damage to person or property caused by, resulting from, or arising out of design, installation, maintenance, or operation of the proposed equipment.

This permit is not transferable to another person, place, or piece or set of equipment. This permit will expire if construction has not begun within two years of its issue date or if construction is suspended for one year.

This permit has been granted on the basis of design information presented with its application. Changes of design or equipment may require DEQ approval pursuant to the *Rules for the Control of Air Pollution in Idaho*, IDAPA 58.01.01.200, et seq.


C. STEPHEN ALLRED, DIRECTOR
DEPARTMENT OF ENVIRONMENTAL QUALITY

DATE ISSUED: December 1, 2003

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ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

acfm	actual cubic feet per minute
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
HAPs	hazardous air pollutants
HEPA	High efficiency particulate filter
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
lb/hr	pound per hour
NO _x	nitrogen oxides
PM	particulate matter
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PTC	permit to construct
<i>Rules</i>	<i>Rules for the Control of Air Pollution in Idaho</i>
SIC	Standard Industrial Classification
SO ₂	sulfur dioxide
T/yr	tons per year
UTM	Universal Transverse Mercator
VOC	volatile organic compound

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-020521**Permittee:** U.S. Department of Energy, INEEL/INTEC
Location: Idaho Falls, Idaho**AIRS Facility No.**
023-00001**Date Issued:** December 1, 2003**1. PERMIT TO CONSTRUCT SCOPE*****Purpose***

This PTC incorporates and replaces the following permits:

- PTC No. 023-00001, issued October 18, 1999
- PTC No. 0340-0001-300, issued May 20, 1988

Regulated Sources

Table 1.1 lists all sources of regulated emissions in this PTC.

Table 1.1 REGULATED EMISSIONS SOURCES

Permit Section	Source Description	Emissions Control(s)
2	Fluorinel and storage facility (FAST)	Four parallel filter banks, each containing prefilters and 24 HEPA filters
3	LET&D	Two LET&D mist eliminators and two banks of LET&D HEPA filters
3	Ventilation air system	VAPS fiberglass bed prefilter and 26 banks of four VAPS HEPA filters
3	Process off-gas system	PAPS mist eliminator, a single stage of three PAPS HEPA filters, DOG mist eliminator, DOG non-HEPA filtration, VOG mist eliminator, VOG HEPA filter, NWCF high efficiency cyclone, NWCF wet scrubber system, NWCF HEPA filter (4 banks), Bin Sets 4, 5, 6, and 7 Non-HEPA Filtration (1 or 2 filters)
4	INEEL-wide NO _x sources	None

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-020521

Permittee: U.S. Department of Energy, INEEL/INTEC	AIRS Facility No. 023-00001	Date Issued: December 1, 2003
Location: Idaho Falls, Idaho		

2. FLUORINEL AND STORAGE FACILITY (FAST)**2.1 Process Description**

Receipt, movement, and general handling of nuclear fuel is associated with the storage of fuel in the FAST (Fluorinel and storage) facility. Storage of fuel is maintained in large water-filled basins. Areas in the building and equipment associated with the past practice of dissolving fuel are shutdown.

2.2 Emissions Control Description

The FAST final exhaust is vented through four parallel sets of filters consisting of prefilters and a stage of High Efficiency Particulate Air (HEPA) filters. Each stage is made up of 24 individual HEPA filters. Normally all four separate air streams are on-line going through the filters. Any one of the separate filter banks may be isolated to allow maintenance or other activities. All gases emitted from the FAST go through these final stages of HEPA filtration before entering the FAST stack.

Table 2.1 FAST DESCRIPTION

Emissions Unit(s) / Process(es)	Emissions Control Device	Emissions Point
FAST process	Prefilters and a stage of HEPA filters	FAST stack CPP-767-001

2.3 FAST Equipment Listing

- 2.3.1 FAST stack
- 2.3.2 FAST fuel storage basin
- 2.3.3 FAST dissolution cell
- 2.3.4 HEPA filters (two in series) at the FAST dissolution cell
- 2.3.5 FAST FM area vessels
- 2.3.6 Prefilter stages (four in parallel)
- 2.3.7 HEPA filtration stages (four in parallel)

2.4 FAST Stack Specifications

The FAST stack (CPP-767-001) has the following specifications:

- Stack Height - 160.0 feet
- Stack Diameter - 5.4 feet
- Flow Rate - 92,000 acfm (actual cubic feet per minute)

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Emissions Limits

2.5 Emissions Limits

Emissions of radionuclides from the FAST stack shall not, by themselves, or in combination with emissions from other INEEL sources, exceed those amounts that would cause any member of the public to receive in any year an effective dose equivalent in excess of 10 millirem per year, in accordance with 40 CFR 61, Subpart H. Doses due to radon-220 and radon-222, and their respective decay products are excluded from this limit.

Operating Requirements

2.6 Radionuclide Requirements

The permittee shall maintain and operate instrumentation in accordance with 40 CFR 61, Subpart H, to verify proper operation of the air pollution control equipment installed and ensure that the limits in Permit Condition 2.5 are met.

2.7 HEPA Filter Requirements

The permittee shall install, operate, and maintain at least one stage of HEPA filters having a minimum particle removal efficiency of no less than 99.97%. The permittee shall maintain and operate instrumentation to measure the pressure drop across the filter stages. HEPA filter efficiency shall be tested after installation and on an annual basis according to the ANSI N510 testing standard. All HEPA filters must be pretested and certified prior to installation and must meet government performance specifications and overpressure and rough handling requirements per MIL-F-51068. The permittee shall maintain written procedures in place which specify the conditions which require change out of the filters.

Monitoring and Recordkeeping Requirements

2.8 Radionuclide Monitoring

The permittee shall perform radionuclide sampling and dose calculations as specified by 40 CFR 61, Subpart H. Effective dose equivalents to members of the public shall be calculated using EPA-approved sampling procedures and EPA model CAP-88PC or other EPA-approved models.

2.9 HEPA Filter Monitoring

The permittee shall monitor the pressure drop across the HEPA filter stages.

Reporting Requirements

2.10 Annual Report

The permittee shall submit an annual report by July 1 that provides the results of dose calculations based on collected INEEL emissions during the preceding calendar year (January 1 to December 31).

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3. LET&D, VENTILATION AIR SYSTEM, AND PROCESS OFF-GAS SYSTEM

3.1 Process Description

The emissions exhausting from the main stack are derived from three separate systems: the Liquid Effluent Treatment and Disposal (LET&D) facility, the ventilation air system, and the process off-gas system.

LET&D Process and Control Description

The LET&D facility treats the Process Equipment Waste (PEW) Evaporator condensate, which is a low-level liquid waste (LLLW), by an acid fractionation process. The acid portion or bottoms are used at the New Waste Calcining Facility (NWCF) or stored in the Tank Farm. The remaining gaseous overheads are discharged to the main stack.

The gaseous overheads, produced in the fractionation process, are processed through one of two parallel off-gas trains. The LET&D off-gas trains consist of a mist eliminator, a superheater, two banks of HEPA filters, and a blower. Liquid droplets are removed by mist eliminators and returned to the fractionators. The gas is then heated to ensure there is no liquid water in the stream. Any solids are removed by HEPA filters. There are two HEPA filter banks, one of which is required to be operating whenever a fractionator is operated. Each bank consists of two filter stages in series, each stage consisting of two filters. The blower provides the motive force for the effluent. After the blower, the effluent is discharged to the main stack.

Ventilation Air System Process and Control Description

The ventilation air system is comprised of ventilation air from CPP-601, 602, 604, 640, and 1618. This air is used to heat, ventilate, and to provide contamination control for the above facilities. This air, which comprises the bulk of the flow to the main stack, passes through the Ventilation Atmospheric Protection System (VAPS). This gas cleanup system consists of a fiberglass bed prefilter; HEPA filters arranged in 26 parallel banks of four filters; and three blowers; two of which normally operate. The blowers provide the motive force for the system and exhaust the air to the main stack.

Off-Gas Process and Control Description

The flow from Process Atmospheric Protection System (PAPS) is exhausted to the main stack. The PAPS flow is comprised of three off-gas systems: the dissolver off-gas (DOG), the vessel off-gas (VOG), and the waste calcining off-gas. The PAPS system consists of a demister, superheater, and a single stage of three parallel HEPA filters. From the PAPS, the off-gas is exhausted to the main stack.

The flow in the DOG system is comprised of off-gas from fuel processing facilities in CPP-601 and the Rare Gas Plant in CPP-604. These facilities are not being operated due to the current mission. The vacuum provided by the DOG system is used for contamination control. The DOG system consists of a mist eliminator, a superheater, a single stage of non-HEPA filters, and a blower. The blower effluent is discharged to the PAPS and then the main stack.

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The flow in the VOG system is comprised of off-gas from the High-Level Liquid Waste (HLLW) Tank Farm (11 large waste tanks and numerous other small tanks, valve boxes, etc.), the PEW evaporator, fuel processing facilities in CPP-601 and the Pilot Plants in CPP-620 and 637. The system provides vacuum and contamination control to vessels in the connected facilities. The VOG system consists of a mist eliminator, a superheater, and a HEPA filter. In past practice, the Pilot Plant off-gasses were always combined with CPP-601 off-gas prior to passing through the VOG system. In the future, the 620/637 Pilot Plants will also have the capability of exhausting off-gas directly to the main stack after local HEPA filtration.

The flow in the NWCF and WCF Process Off-gas system (POG) is comprised of off-gas from the NWCF and WCF. The NWCF and the WCF were built to reduce HLLW to a smaller volume and more stable solid form known as calcine. The NWCF replaced the WCF and is the only active calciner.

High Level Liquid Waste from the Tank Farm is solidified in a fluidized-bed calciner at about 500 degrees Celsius using liquid fuel (typically kerosene) and oxygen to produce heat. The off-gas from the calciner vessel is cleaned by a high-efficiency cyclone, liquid scrub system, and four parallel banks of HEPA filters. One or two of the HEPA filter banks are on-line during operation. Each filter bank is made up of three stages, each with two HEPA filters. Each filter bank provides the removal efficiency equivalent to two stages of HEPA filtration at 99.97% each, during test conditions.

The calcined waste produced at the NWCF is transported by a pneumatic system to the Calcined Solids Storage Bins. The air used to transport the calcine is vented back through the NWCF and is discharged to the main stack. There are currently five sets of filled bins. The sixth bin set is being filled and the seventh is being prepared for service. Each bin set consists of stainless steel bins inside a concrete vault. Bin sets 1, 2, and 3 are ventilated through the PAPS via the WCF off-gas line. Bin sets 4, 5, 6, and 7 have pressure relief systems which relieve through filters to the atmosphere when they are isolated from the NWCF calcine transfer system.

3.2 Emissions Control Description

Pollution Control Equipment Listing

- 3.2.1 LET&D Mist eliminators (2 parallel trains)
- 3.2.2 LET&D HEPA filtration (2 banks)
- 3.2.3 VAPS Glass fiber bed filtration
- 3.2.4 VAPS HEPA filtration (26 banks)
- 3.2.5 PAPS Mist eliminator
- 3.2.6 PAPS HEPA filtration (1 stage of 3 filters)
- 3.2.7 DOG Mist eliminator
- 3.2.8 DOG Non-HEPA filtration
- 3.2.9 VOG Mist eliminator
- 3.2.10 VOG HEPA filtration (1 filter)
- 3.2.11 NWCF High efficiency cyclone
- 3.2.12 NWCF Wet scrubber system
- 3.2.13 NWCF HEPA filtration (4 banks)

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Location: Idaho Falls, Idaho		

3.2.14 Bin Sets 4, 5, 6, and 7 Non-HEPA Filtration (1 or 2 filters)

3.3 Main Stack Specification

The Main Stack (CPP-708) has the following specifications:

Stack Height - 250.0 feet
Stack Diameter - 6.5 feet
Flow Rate - 119,000 acfm (actual cubic feet per minute)

Table 3.1 LET&D, VENTILATION AIR SYSTEM, AND PROCESS OFF-GAS SYSTEM DESCRIPTION

Emissions Unit(s) / Process(es)	Emissions Control Device	Emissions Point
LET&D	Two LET&D mist eliminators and two banks of LET&D HEPA filters	Main stack CPP-708 Height – 250 ft Diameter – 6.5 ft Flow rate – 119,000 acfm
Ventilation air system	VAPS fiberglass bed prefilter and 26 banks of four VAPS HEPA filters	Same as above
Process off-gas system	PAPS mist eliminator, a single stage of three PAPS HEPA filters, DOG mist eliminator, DOG non-HEPA filtration, VOG mist eliminator, VOG HEPA filter, NWCF high efficiency cyclone, NWCF wet scrubber system, NWCF HEPA filter (4 banks), bin sets 4, 5, 6, and 7 non-HEPA filters (1 or 2 filters)	Same as above

Emissions Limits

3.4 Nitrogen Oxide (NO_x) Emission Limits

NO_x emissions shall not exceed 472 lb/hr, as determined by the in-stack continuous emission-monitoring system (CEMS), by approved U.S. EPA Reference Methods or approved alternative. Because the NWCF is the only substantial contributor of NO_x emissions to the main stack, continuous emission monitoring for NO_x is required only when the NWCF is operating. Annual NO_x emissions shall not exceed 1700 T/yr, as determined by summing the actual hourly emissions as shown by the CEMS and the results of any other emissions estimation methods that were used.

3.5 Radionuclide Emissions Limits

Emissions of radionuclides from the main stack shall not, by themselves, or in combination with emissions from other INEEL sources, exceed those amounts that would cause any member of the public to receive in any year an effective dose equivalent in excess of 10 millirem per year, in accordance with 40 CFR 61, Subpart H. Doses due to radon-220 and radon-222, and their respective decay products, are excluded from this limit.

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-020521

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Location: Idaho Falls, Idaho		

Table 3.2 LET&D, VENTILATION AIR SYSTEM, AND PROCESS OFF-GAS SYSTEM EMISSIONS LIMITS

Source Description	NO _x		Radionuclides
	lb/hr	T/yr	millirem/yr
Main stack CPP-708	472	1700	10
Combined INEEL sources			10

Operating Requirements**3.6 Radionuclide Requirements**

The permittee shall maintain and operate instrumentation in accordance with 40 CFR 61, Subpart H, to verify proper operation of the air pollution control equipment installed and ensure the limits in Section 3.5 are met.

3.7 HEPA Filter Requirements

The permittee shall install, operate, and maintain HEPA filter stages for the VAPS, PAPS, and NWCF having a minimum particle removal efficiency of no less than 99.97%. The permittee shall maintain and operate instrumentation to measure the pressure drop across the filter stages. HEPA filter efficiency shall be tested after installation and on an annual basis according to the ANSI N510 testing standard. All HEPA filters must be pretested and certified prior to installation and meet the government performance specification and overpressure and rough-handling requirements per MIL-F-51068. The permittee shall maintain written procedures in place which specify the conditions which require change out of the filters.

Monitoring and Recordkeeping Requirements**3.8 CEMS Monitoring**

The permittee shall maintain and operate an in-stack CEMS (continuous emissions monitor system) for the measurement of nitrogen oxides and gas flow rate at the main stack. The CEMS is required to be operated only while the NWCF is operating. The CEMS shall meet the requirements specified in 40 CFR 60, Appendix B. The permittee will maintain documentation that describes quality assurance procedures and maintenance procedures.

3.9 Radionuclide Monitoring

The permittee shall perform radionuclide sampling and dose calculations in accordance with 40 CFR 61, Subpart H. Effective dose equivalents to members of the public shall be calculated using EPA-approved sampling procedures and EPA model CAP-88PC or other EPA-approved models.

3.10 HEPA Filter Monitoring

The permittee shall monitor the pressure drop across the HEPA filter stages.

3.11 Scrubber Monitoring

The permittee shall monitor the water flow rate and the pressure drop across all scrubbers.

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-020521

Permittee: U.S. Department of Energy, INEEL/INTEC	AIRS Facility No.	Date Issued: December 1, 2003
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Reporting Requirements

3.12 Annual Report

The permittee shall submit an annual report by July 1 that provides the results of dose calculations based on collected INEEL emissions during the preceding calendar year (January 1 to December 31).

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-020521

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Location: Idaho Falls, Idaho	023-00001	

4. INEEL-WIDE NO_x SOURCES

4.1 Process Description

A PTC was originally issued on 5/20/88 and addressed the increased throughput capacity and air emissions associated with the Fuel Processing Restoration (FPR) project. This project was cancelled and the permit was modified to remove the sections that were no longer applicable. The modified permit was issued on October 18, 1999. The current modification removes INTEC B-601, INTEC B-602, INTEC B-604, INTEC B-605, AND CFA 668 B-31, which have been removed from service and will no longer be operated. In addition, the requirement to operate and maintain an ambient monitoring network for the measurement of NO_x has been removed.

The facilities listed under this source heading with their corresponding NO_x short-term and long-term emission limits are located throughout the INEEL. The top portion of the INEEL site (approximately divided at the 43 degree, 45-minute latitude) was separated from this project mainly for modeling purposes. Although the Test Area North facility was included in the inventory of existing sources submitted in the original application, it was later excluded from modeling and will not be listed in this permit.

4.2 Facility and Acronym Listing

Argonne National Laboratory	ANL
Central Facilities Area	CFA
Naval Reactor Facility	NRF
Power Burst Facility Area	PBF
Waste Management Operations	WMO

4.3 Emissions Control Description

The INEEL-wide NO_x sources are uncontrolled.

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Permittee: U.S. Department of Energy, INEEL/INTEC	AIRS Facility No. 023-00001	Date Issued: December 1, 2003
Location: Idaho Falls, Idaho		

Emissions Limits**4.4 Emission Limits**

NO_x emissions from all INEEL-wide NO_x sources shall not exceed their corresponding pound-per-hour (lb/hr) or tons-per-year (T/yr) emission limits listed in Table 4.1.

Table 4.1 INEEL-WIDE NO_x SOURCES EMISSIONS LIMITS

Source Description	NO _x	
	lb/hr	T/yr
ANL Boiler No. 1 (Keeler boiler)	3.36	14.72
ANL Boiler No. 2 (Keeler boiler)	3.36	14.72
ANL Boiler No. 3 (Keeler boiler)	3.36	14.72
ANL Boiler No. 4 (Cleaver Brooks boiler)	3.74	14.72
CFA-650 B-25 (Cleaver Brooks boiler)	0.58	1.90
CFA-662 B-28 and B-35 (one stack)	0.96	3.14
CFA-671 B-33 and B-34 (one stack)	1.52	4.98
CFA-688 B-101 and B-102 (one stack)	2.32	7.21
NRF Boiler No. 1 (Vogt boiler)	22.66	37.13
NRF Boiler No. 2 (Vogt boiler)	22.66	37.13
NRF Boiler No. 3 (Vogt boiler)	22.66	37.13
PBF-620 M-31 (Cyclotherm boiler)	0.24	0.79

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-020521

Permittee: U.S. Department of Energy, INEEL/INTEC	AIRS Facility No. 023-00001	Date Issued: December 1, 2003
Location: Idaho Falls, Idaho		

5. SUMMARY OF EMISSIONS LIMITS

Table 5.1 provides a summary of all emissions limits required by this permit:

Table 5.1 SUMMARY OF EMISSIONS LIMITS^a

Source Description	NO _x		Radionuclides
	lb/hr	T/yr ^b	millirem/yr
Combined INEEL sources			10
FAST stack			10
Main stack CPP-708 (LET&D, ventilation air system, and process off-gas system)	472	1700	10
ANL Boiler No. 1 (Keeler boiler)	3.36	14.72	
ANL Boiler No. 2 (Keeler boiler)	3.36	14.72	
ANL Boiler No. 3 (Keeler boiler)	3.36	14.72	
ANL Boiler No. 4 (Cleaver Brooks boiler)	3.74	14.72	
CFA-650 B-25 (Cleaver Brooks boiler)	0.58	1.90	
CFA-662 B-28 and B-35 (one stack)	0.96	3.14	
CFA-671 B-33 and B-34 (one stack)	1.52	4.98	
CFA-688 B-101 and B-102 (one stack)	2.32	7.21	
NRF Boiler No. 1 (Vogt boiler)	22.66	37.13	
NRF Boiler No. 2 (Vogt boiler)	22.66	37.13	
NRF Boiler No. 3 (Vogt boiler)	22.66	37.13	
PBF-620 M-31 (Cyclotherm boiler)	0.24	0.79	

^a As determined by a pollutant-specific EPA reference method, DEQ-approved alternative, or as determined by DEQ's emissions estimation methods used in this permit analysis.

^b As determined by multiplying the actual or allowable (if actual is not available) pound-per-hour emissions rate by the allowable hours per year that the process(es) may operate(s), or by actual annual production rates. The permittee shall not exceed the T/yr listed based on any consecutive 12-month period.

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-020521**Permittee:** U.S. Department of Energy, INEEL/INTEC
Location: Idaho Falls, Idaho**AIRS Facility No.**
023-00001**Date Issued:** December 1, 2003**6. EMISSIONS INVENTORY**

The following table is a summary of the emissions increases and decreases associated with this permit modification. The emissions inventory table is provided for informational purposes only.

Table 6.1 EMISSIONS INVENTORY

Pollutant	Annual Emissions Increase (T/yr)	Annual Emissions Decrease (T/yr)	Change in Annual Emissions (T/yr)
NO _x		193.47	(193.47)
SO ₂		687	(687)
CO		48.4	(48.4)
PM/PM ₁₀		31.9	(31.9)
VOC		2.4	(2.4)
TAPS/ HAPS		0.05	(0.05)
Total:		963	(963)

* TAPS/HAPS = toxic air pollutants / hazardous air pollutants

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-020521

Permittee: U.S. Department of Energy, INEEL/INTEC
Location: Idaho Falls, Idaho

AIRS Facility No.
023-00001

Date Issued: December 1, 2003

7. PERMIT TO CONSTRUCT GENERAL PROVISIONS

1. The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit and the *Rules for the Control of Air Pollution in Idaho*. The emissions of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the *Rules for the Control of Air Pollution in Idaho*, and the Environmental Protection and Health Act, Idaho Code §39-101, et seq., and the permittee is subject to penalties for each day of noncompliance.
2. The permittee shall at all times (except as provided in the *Rules for the Control of Air Pollution in Idaho*) maintain in good working order and operate as efficiently as practicable, all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.
3. The permittee shall allow the Director, and/or the authorized representative(s), upon the presentation of credentials:
 - To enter, at reasonable times, upon the premises where an emissions source is located, or in which any records are required to be kept under the terms and conditions of this permit.
 - At reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit, to inspect any monitoring methods required in this permit, and require stack compliance testing in conformance with IDAPA 58.01.01.157 when deemed appropriate by the Director.
4. Nothing in this permit is intended to relieve or exempt the permittee from compliance with any applicable federal, state, or local law or regulation, except as specifically provided herein.
5. The permittee shall notify DEQ, in writing, of the required information for the following events within five working days after occurrence:
 - Initiation of Construction - Date
 - Completion/Cessation of Construction - Date
 - Actual Production Startup - Date
 - Initial Date of Achieving Maximum Production Rate - Production Rate and Date
6. If compliance testing is specified, the permittee must schedule and perform such testing within 60 days after achieving the maximum production rate, and not later than 180 days after initial startup. This requirement shall be construed as an ongoing requirement. The permittee shall not operate the source without testing within 180 days. If testing is not conducted within 180 days after initial startup, then each day of operation thereafter without the required compliance test constitutes a violation. Such testing must **strictly** adhere to the procedures outlined in IDAPA 58.01.01.157 and shall not be conducted on weekends or state holidays without prior written approval from DEQ. Testing procedures and specific time limitations may be modified by DEQ by prior negotiation if conditions warrant adjustment. DEQ shall be notified at least 15 days prior to the scheduled compliance test. Any records or data generated as a result of such compliance test shall be made available to DEQ upon request.

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-020521

Permittee:	U.S. Department of Energy, INEEL/INTEC	AIRS Facility No.	Date Issued: December 1, 2003
Location:	Idaho Falls, Idaho	023-00001	

7. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
8. In accordance with IDAPA 58.01.01.123, all documents submitted to DEQ, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certification shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.



Air Quality Permitting Statement of Basis

November 18, 2003

Permit to Construct No. P-020521

Department of Energy, INEEL

AIRS Facility No. 023-00001

Prepared by:

*Carole Zundel, Permit Writer
AIR QUALITY DIVISION*

FINAL PERMIT

1. PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01.200, *Rules for the Control of Air Pollution in Idaho*, for issuing permits to construct.

2. PROJECT DESCRIPTION

The Department of Energy (DOE) at INEEL is proposing to modify the INTEC nitrogen oxide sources PSD PTC No. 023-00001, issued on October 18, 1999. The modifications to the permit include deleting the sources in Section C and Appendix A of the permit. Some of the sources are no longer operational, others are proposed to be exempted, and others are proposed to be removed from the permit as their installations predate PTC regulations. Also, the facility proposes to delete the requirement to operate and maintain an ambient monitoring network for the measurement of NO_x.

The permit has been renumbered and reformatted.

The following sections address the amendments requested in the December 20, 2002 submittal for modification of the INEEL INTEC NO_x source PTC No. 023-00001.

ATTACHMENT 1 (OF 12/20/02 INEEL LETTER)

Amendment Request 1: Requests removal of CFA-650 B-25, CFA-662 B-28 and B-35, CFA-671 B-33 and B-34, CFA-688 B-101 and B-102, and PBF-620 M-31. These sources were identified as qualifying for exemptions under IDAPA 58.01.01.221-223.

DEQ Determination: The Department of Environmental Quality (DEQ) has reviewed the request and determined that this source does not qualify for an exemption under IDAPA 58.01.01.220. The decision about obtaining a permit or an exemption is made at commencement of construction or modification of a source. The PTC rules do not contain provisions for termination of a PTC for a source that will continue to operate. Therefore, the emissions from the above-listed sources remain permitted.

Amendment Request 2: States that INTEC B-601, INTEC B-602, INTEC B-604, INTEC B-605, and CFA 668 B-31 have been removed from service and will no longer be operated and requests that those boilers be removed from the permit.

DEQ Determination: Because the boilers have been removed from service and will no longer be operated, the potential air pollutant emissions from the boilers have been eliminated and the boilers are no longer stationary sources as defined in IDAPA 58.01.01.103.. Therefore, INTEC B-601, INTEC B-602, INTEC B-604, INTEC B-605, and CFA 668 B-31 have been removed from Appendix A of the permit.

Amendment Request 3: Requests that Section C.3 of the PTC No. 023-00001 be removed. This is the requirement to operate and maintain an ambient monitoring network for the measurement of NO_x. The results from the ambient monitoring network for the period from 1988 through 2002 showed no exceedances of the national ambient air quality standards for nitrogen dioxide, and the new waste calciner, a significant source of NO_x, is no longer operational, although it remains permitted.

DEQ Determination: The Department has reviewed the monitoring data and has determined that, based on the data and the fact that the new waste calciner is no longer in operation, continued monitoring for NO₂ is not required. Permit Condition C.3, has been eliminated from the permit. For a detailed explanation, refer to Appendix A of this memo. If the calciner resumes operation, INEEL is required to notify DEQ, and DEQ will evaluate the re-instatement of the NO_x ambient monitoring network.

ATTACHMENT 2 (OF 12/20/02 INEEL LETTER)

Amendment Request 1: Requests removal of ANL Boiler No. 1, ANL Boiler No. 2, ANL Boiler No. 3, and ANL Boiler No. 4. These sources were installed prior to the promulgation of the Clean Air Act amendments of 1977 which established the preconstruction permitting program.

DEQ Determination: Since the ANL boilers remain in operation today, and were included as part of an original PSD application and received emission limits for purposes of establishing a baseline emissions inventory, these boilers will remain in the permit.

ATTACHMENT 3 (OF 12/20/02 INEEL LETTER)

Amendment Request 1: Requests removal of NRF/Boiler No. 1, NRF/Boiler No. 2, and NRF/Boiler No. 3. These sources were installed prior to the promulgation of the Clean Air Act amendments of 1977 which established the preconstruction permitting program.

DEQ Determination: Since the NRF boilers remain in operation today, and were included as part of an original PSD application and received emission limits for purposes of establishing a baseline emissions inventory, these boilers will remain in the permit.

3. PROJECT SUMMARY OF EVENTS

1/3/03	DEQ received INEEL's request for modification of the INEEL INTEC nitrogen oxide sources PTC No. 023-00001 issued October 18, 1999.
3/7/03	Completeness determination issued.
3/26/03	DEQ received an e-mail from John Gill of INEEL including the Visible Emission Modified Method 22 document to supplement the request for modification of PTC No. 023-00001.
7/15/03	DEQ issued draft PTC No. P-020521.
9/2/03	DEQ issued letter to INEEL requiring comments on the draft PTC within 10 working days of the date of the 9/2/03 letter.
9/18/03	DEQ received comments from the facility regarding the draft PTC.

4. PUBLIC COMMENT

An opportunity for public comment period on the PTC application was provided, in accordance with IDAPA 58.01.01.209.01.c., from March 21, 2003 to April 21, 2003. During this time, there were no comments on the application and no requests for a public comment period on DEQ's proposed action.

Comments on the draft permit were received from INEEL on September 18, 2003 (Appendix B). Comments No. 1 – 5, 8, 9, 11, 13, 14, 26, 29, and 31 were incorporated as suggested. These comments requested minor corrections such as typos or administrative changes. The remaining comments requested permit changes that require further analysis and were not identified in the original permit application. Changes in stack parameters, for example, will cause different pollutant dispersion characteristics. Therefore, a separate permit modification application is required for these types of changes prior to constructing or implementing the change or modification. This request must also be noticed pursuant to IDAPA 58.01.01 209.01.c and be reviewed by the DEQ to ensure compliance with the Rules.

Comment No. 30 requests that the boilers listed in Permit Condition 4.4 be removed from the permit because:

- The boilers were not being constructed or modified at the time the (original) permit was issued,
- Including these boilers in the permit solely because they were included in the PSD modeling analysis is not appropriate and is inconsistent with other DEQ permitting actions,
- Several of these INEEL sources qualify for categorical exemptions and the remaining sources were constructed prior to issuance of the PTC rules and have not undergone modification since.

DEQ has reviewed the request and determined these boilers do not qualify for an exemption under IDAPA 58.01.01.220. The decision about obtaining a permit or an exemption is made at commencement of construction or modification of a source. The PTC rules do not contain provisions for termination of the PTC permit condition for a source that will continue to operate. Therefore, the boilers will remain permitted.

5. PERMIT FEES

INEEL, Bechtel BWXT, paid the \$1,000 application fee as required in IDAPA 58.01.01.224 on January 29, 2003.

A permit to construct processing fee of \$1,000 is required in accordance with IDAPA 58.01.01.225 because the amendments are a modification to existing source with increase of emissions of less than one ton per year and an engineering analysis was done for the NO_x ambient monitoring system. DEQ received the permit to construct processing fee of \$1,000 from the facility on October 2, 2003.

The INEEL facility is a major facility as defined in IDAPA 58.01.01.008.10 and is therefore subject to registration and registration fees in accordance with IDAPA 58.01.01.387. The facility is current with its registration fees.

Table 5.1 EMISSIONS INVENTORY

Emissions Inventory (Based on Distillate Oil)			
Pollutant	Annual Emissions Increase (T/yr)	Annual Emissions Reduction (T/yr)	Annual Emissions Change (T/yr)
NO _x	0.0	193.47	(193.47)
SO ₂	0.0	687	(687)
CO	0.0	48.4	(48.4)
PM ₁₀	0.0	31.9	(31.9)
VOC	0.0	2.4	(2.4)
TAPS/HAPS	0.0	0.05	(0.05)
Total:	0.0	963	(963)
Fee Due	\$ 1,000.00		

6. RECOMMENDATION

Based on review of application materials and all applicable state and federal rules and regulations, staff recommend that INEEL be issued PTC No. P-020521 for the deletion of four INTEC boilers and one CFA boiler from the permit and the deletion of the requirement for NO_x ambient monitoring. No public comment period is recommended, no entity has requested a comment period, and the project does not involve new PSD requirements.

CZ/sd Permit No. P-020521

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APPENDIX A

Air Quality Monitoring Data Assessment



Air Quality Monitoring Data Assessment

November 14, 2003

**Department of Energy, INEEL
AIRS Facility No. 023-00001**

Prepared by:

***Bruce Louks, Manager, Air Quality Monitoring, Modeling and Emission
Inventory
AIR QUALITY DIVISION***

1. PURPOSE

The purpose for this memorandum is to assess the need for further monitoring for oxides of nitrogen, particularly (NO₂), a criteria pollutant regulated by the US Environmental Protection Agency, at the Experimental Field Station and Van Buren monitoring locations near the Idaho National Engineering and Environmental Laboratory (INEEL).

2. PROJECT DESCRIPTION

Monitoring for ambient levels of NO₂ at these two sites has been on-going since 1996. The monitoring objective was to assess the maximum potential impact of specific process emissions to ambient air levels of NO₂. Modeling analysis determined that the two monitoring sites selected would be in the regions of maximum impact for NO₂.

Both the primary and secondary national ambient air quality standards (NAAQS) for NO₂ are set at an annual average of 0.053 ppm (100 ug/m³). A community or airshed must not exceed this annual-average value to be in attainment of the NO₂ NAAQS. This project reviews the monitoring data in order to assess the potential risk of the airshed surrounding this facility to exceed the NAAQS for NO₂.

3. PROJECT SUMMARY OF DATA

Year	Monitor Location	Number	24-hour max (ppm)	1-hour max (ppm)	Annual ave (ppm)	No. of days
		of hourly samples				calciner operated
1996	Field Station	7188	0.038	0.088	0.004	0
	Van Buren	8510	0.005	0.166	0.002	
1997	Field Station	8075	0.010	0.034	0.005	178
	Van Buren	8321	0.004	0.030	0.002	
1998	Field Station	8353	0.010	0.014	0.004	102
	Van Buren	8577	0.004	0.030	0.002	
1999	Field Station	8331	0.004	0.010	0.002	120
	Van Buren	7760	0.004	0.010	0.001	
2000	Field Station	7872	0.011	0.018	0.004	82
	Van Buren	8093	0.006	0.010	0.001	
2001	Field Station	5945*	0.004	0.008	0.002	0
	Van Buren	7970	0.004	0.009	0.001	
2002	Field Station	4325*	0.007	0.010	0.005	0

* does not meet data completeness (# hours) required to calculate an annual average

4. RECOMMENDATION

Based on review of the monitoring data, it is my recommendation that monitoring for oxides of nitrogen be discontinued for the stated purpose. There is minimal risk for this airshed to the NAAQS for nitrogen dioxide. A ten-fold increase in the measured ambient NO₂ concentrations would be required for such an occurrence.

BL/sd Permit No. P-020521

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APPENDIX B

Comments from INEEL
September 15, 2003



Idaho National Engineering and Environmental Laboratory

September 15, 2003

CCN 44921

Mr. Mike Simon
Department of Environmental Quality
1410 North Hilton
Boise, ID 83706-1255

COMMENTS ON DRAFT PERMIT TO CONSTRUCT MODIFICATION FOR THE IDAHO
NUCLEAR TECHNOLOGY AND ENGINEERING CENTER, NITROGEN OXIDE SOURCES
(PERMIT NUMBER P-020521) LOCATED AT THE IDAHO NATIONAL ENGINEERING AND
ENVIRONMENTAL LABORATORY

Dear Mr. Simon:

On behalf of the Department of Energy, Idaho Operations Office, Bechtel BWXT Idaho, LLC submits the attached comments on draft Permit to Construct (PTC) for the Idaho Nuclear Technology and Engineering Center, Nitrogen Oxide Sources, Permit No. P-020521, issued by the State of Idaho Department of Environmental Quality (DEQ) on July 15, 2003. The draft PTC was in response to a PTC application submitted by the Department of Energy on December 20, 2002 requesting that the PTC be modified to delete or exempt sources and to delete the nitrogen oxide ambient monitoring requirement from the existing PTC, dated October 18, 1999.

The Idaho National Engineering and Environmental Laboratory (INEEL) recognizes that it is DEQ's position that the Idaho Administrative Procedures Act (IDAPA) 58.01.01 *Rules for the Control of Air Pollution in Idaho* do not contain provisions for termination of a PTC for a source that will continue to operate. Because this position impacts both this and other PTC modification requests that have been submitted by the INEEL in recent months, and entails continued permitting of these sources under IDAPA 58.01.01.300 (Title V permit program), the INEEL will be requesting additional meetings with DEQ on this issue.

Briefly, we believe that continued permitting of demonstrably exempt sources provides minimal environmental benefit in comparison to the administrative and economic costs. Further, it is our understanding that other Idaho businesses may have been allowed to terminate PTCs for sources that continued to operate. We want to ensure that if this is an official DEQ policy, that it is being enforced equally throughout the State. We also question how this policy is being implemented with respect to sources which are not now, but were previously subject to permitting prior to the categorical exemption rules, but for which permit applications were never received and permits were not issued. Since the PTC rules are not explicit on the subject, we feel the issue warrants further evaluation.

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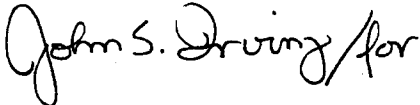
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State Air Program

Mr. Mike Simon
September 15, 2003
CCN 44921
Page 2

If you have any questions, please contact B. M. Angle at (208) 526-1841 or me at (208) 526-4704.

Sincerely,



Ronald H. Guymon, Director
Environmental Compliance

SRP:th

Attachment

- References:
- (a) M. Simon letter to T. Perkins, AIRS Facility No. 023-00001, Nitrogen Oxide Sources, INEEL, Idaho Falls Comments Due on Draft Permit to Construct, September 2, 2003
 - (b) M. Simon letter to T. Perkins, AIRS Facility No. 023-00001, Nitrogen Oxide Sources, INEEL, Idaho Falls Draft Permit to Construct, July 15, 2003
 - (c) T. Perkins to R. Owen, Request for Modification of the State of Idaho Air Permit to Construct for the INEEL INTEC, Nitrogen Oxide Sources (TS-ETSD-02-195), December 20, 2002

cc: S. S. Crawford, INEEL, MS 3810 (w/o Att.)
R. A. Hartline, NE-ID, MS 5121
R. C. Nugent, INEEL, MS 3428
R. Owen, DEQ
T. L. Perkins, NE-ID, MS 1216
B. D. Shipp, INEEL, MS 3898
R. S. Watkins, INEEL, MS 3898
S. A. Woolf, NE-ID, MS 1216
C. Zundel, DEQ

1. Page 1, Block #3. Mailing Address should be changed to 1955 N. Fremont Avenue. Zip Code should be changed to 83415.
2. Page 1, Block #4. Facility Contact should be changed to Teresa Perkins. Title should be changed to Director, Environmental Technical Support Division. Telephone Number should be changed to (208) 526-1483.
3. Page 1, Block #5. Responsible Official should be changed to Elizabeth Sellers. Title should be changed to Manager, DOE Idaho Operations. Telephone Number should be changed to (208) 526-5665.
4. Pages 2, 5, 6. Typographical change. Replace all occurrences of "Fluorinal" with "Fluorinel."
5. Page 5, Table 1.1, Permit Section 2, FAST, Emissions Control(s). Replace "Prefilters and 24 HEPA filters" with "Four parallel filter banks, each containing prefilters and 24 HEPA filters."
6. Page 5, Table 1.1, Permit Section 3, Process off-gas system, Emissions Control(s). Replace "a single stage of three PAPS HEPA filters" with "five parallel PAPS HEPA filter banks."
7. Page 5, Table 1.1, Permit Section 3, Process off-gas system, Emissions Control(s). Delete the words "bin sets 4, 5, 6, and 7 non-HEPA filters (1 or 2 filters)" from this listing of emissions control devices since these filters vent directly to the atmosphere, not to the process off-gas system. Justification: Air used to transport the calcined waste to bin sets 4, 5, 6, and 7 is vented back through the NWCF off-gas line when being filled. Bin sets 4, 5, 6 and 7 are otherwise isolated from the NWCF and vent directly to the atmosphere through 1 or 2 filters.
8. Page 6, Table 2.1. Typographical change. Replace "CPP-676-001" with "CPP-767-001."
9. Page 6, Section 2.4. Typographical change. Replace "(CPP-676-001)" with "(CPP-767-001)."
10. Page 6, Section 2.4. Replace stack specifications with "Stack Height - 164 feet," "Stack Diameter - 6 feet," and "Flow Rate - approx. 92,000 acfm (actual cubic feet per minute)" to accurately reflect stack parameters.
11. Page 6, Section 2.5, last sentence. Typographical change. Replace "form" with "from."
12. Page 7, Section 2.7. Replace "MIL-F-51068" with "ASME AG-1." Justification: Military standards specification MIL-F-51068 has been cancelled and replaced by ASME AG-1.

13. Page 7, Section 2.9. Typographical change. Replace section title "EPA Filter Monitoring" with "HEPA Filter Monitoring."
14. Page 8, Section 3.1, 3rd paragraph, 3rd sentence. Typographical change. Replace the word "most" with "mist."
15. Page 8, Section 3.1, 5th paragraph, 2nd sentence. Replace "comprised of three off-gas systems" with "comprised of four off-gas systems."
16. Page 8, Section 3.1, 5th paragraph, 2nd sentence. Replace "and the waste calcining off-gas" with "the NWCF off-gas, and Calcine Solids Storage Facility (bin sets 1, 2, and 3) off-gas."
17. Page 8, Section 3.1, 5th paragraph, 3rd sentence. Replace "three parallel HEPA filters" with "five parallel HEPA filter banks."
18. Page 9, Section 3.1, 1st paragraph, 1st complete sentence. In the first complete sentence, delete the words "In the future," and "will." The sentence should read as follows: "The 620/637 Pilot Plants also have the capability of exhausting off-gas directly to the main stack after local HEPA filtration."
19. Page 9, Section 3.1, 2nd paragraph. Replace entire text block discussing the POG flow to accurately reflect that the WCF no longer vents to this off-gas system, as follows: "The flow in the NWCF Process Off-gas system (POG) is comprised of off-gas from the NWCF process. The NWCF was built to reduce High Level Liquid Waste to a smaller volume and more stable solid form known as calcine."
20. Page 9, Section 3.1, 3rd paragraph, 1st sentence. Replace "about 500 degrees" with "about 600 degrees."
21. Page 9, Section 3.2, Item 3.2.6. Replace "1 stage of 3 filters" with "five parallel HEPA filter banks."
22. Page 9, Section 3.3, Flow Rate. Replace "119,000 acfm" with "approx. 100,000 scfm."
23. Page 10, Table 3.1, LET&D, Emissions Point. Replace "Flow rate - 119,000 acfm" with "Flow rate - approx. 100,000 scfm."
24. Page 10, Table 3.1, Process off-gas system, Emissions Control Device. Replace "a single stage of three PAPS HEPA filters" with "five parallel PAPS HEPA filter banks."

25. Page 10, Table 3.1, Permit Section 3, Process off-gas system, Emissions Control Device. Delete the words "bin sets 4, 5, 6, and 7 non-HEPA filters (1 or 2 filters)" from this listing of emissions control devices since these filters vent directly to the atmosphere, not to the process off-gas system. Justification: Air used to transport the calcined waste to bin sets 4, 5, 6, and 7 is vented back through the NWCF off-gas line when being filled. Bin sets 4, 5, 6 and 7 are otherwise isolated from the NWCF and vent directly to the atmosphere through 1 or 2 filters.
26. Page 10, Section 3.6. Typographical change. Replace "Section 2.2" with "Section 3.5."
27. Page 11, Section 3.7. Replace "MIL-F-51068" with "ASME AG-1." Justification: Military standards specification MIL-F-51068 has been cancelled and replaced by ASME AG-1.
28. Page 11, Section 3.11. For clarification, add "when the calciner is operating" to the end of the sentence. Justification: The only scrubber in use is a venturi scrubber associated with the calciner located at the NWCF, and it is only operational when the calciner is operating.
29. Page 12, Section 4.2. Delete 4.2.1, 4.2.2, 4.2.4, 4.2.8, 4.2.9, 4.2.10 since these acronyms are not used in this permit section.
30. Page 14, Section 4.4 and Page 14, Table 5.1 (all boilers). The INEEL requested in Reference (c) that these sources be removed from the permit since they were not being constructed or modified at the time the permit was issued. At the time the permit was originally issued, these sources may have been incorporated to document that they had been included in the Prevention of Significant Deterioration (PSD) nitrogen oxide ambient modeling analysis. The INEEL believes that including these sources in the permit solely because they were included in the PSD modeling analysis is not appropriate and furthermore, is not consistent with other permitting actions taken by the DEQ. The INEEL is not aware of any other permits which incorporate each of the modeled emission sources in the permit and have assigned emission limits for those sources. For reference, several of these INEEL sources qualify for categorical exemptions under IDAPA 58.01.01.220-223, and the remaining sources were constructed prior to issuance of the PTC rules and have not undergone modification since. Further discussion on this amendment is requested.
31. Page 14, Table 5.1. Table 5.1 does not contain footnotes to correspond to the footnote descriptions listed below Table 5.1.

